

1	<b>WITH CONDITION RESPONSIVE MEANS</b>	23	<b>WITH MEANS FOR FURNISHING</b>
2	.For controlling outlet valve		<b>AUXILIARY FLUID TO MATERIAL OR</b>
3	..In response to location of		<b>APPARATUS</b>
	inner boundary of heavy	24	.Energy of fluid utilized for
	component		driving bowl
4	..In response to centrifugal	25	.Gas other than air
	force	26	.Air at atmospheric, or greater,
5	.For controlling inlet valve		pressure
6	..In response to level of liquid-	27	.Liquid
	type material in bowl or in	28	..Moving radially inwardly toward
	reservoir for supplying bowl		axis of rotation of bowl
7	.For controlling drive of (a)	29	..Furnished at plural locations
	bowl or (b) driven means	30	..Including one or more valves in
	within bowl		incoming path
8	..In response to load imposed	31	<b>INCLUDING PLURALITY OF SEPARATE</b>
	upon driven means		<b>AND DISTINCT BOWLS</b>
9	..In response to speed of bowl or	32	.And means external of bowls for
	rotarily-driven means		conducting material
	therewithin		therebetween
10	<b>WITH MEANS FOR INDICATING,</b>	33	.Having bowls equally spaced from
	<b>INSPECTING, MEASURING,</b>		a central axis of rotation for
	<b>SIGNALING OR TESTING</b>		orbiting thereabout
11	<b>WITH CYCLIC OR TIME CONTROL MEANS</b>	34	.Having bowls spaced along common
12	<b>INCLUDING MEANS OR STRUCTURE FOR</b>		axis of rotation
	<b>PROMOTING SAFETY</b>	35	<b>BOWL AND MEANS EXTERNAL THEREOF</b>
13	<b>WITH MEANS FOR EXCHANGING HEAT</b>		<b>FOR RECIRCULATING MATERIAL</b>
14	.Comprising or including means	36	<b>WITH MEANS FOR FILTERING</b>
	for cooling	37	<b>PROCESS</b>
15	<b>WITH MEANS FOR LUBRICATING</b>	38	<b>INCLUDING SEALING MEANS</b>
16	<b>INCLUDING PLURALITY OF MINIATURE</b>	39	.For protecting evacuated, bowl-
	<b>BOWLS (E.G., TEST TUBES)</b>		enclosing housing against
	<b>DISTRUBUTED ABOUT ROTATABLE</b>		gaseous infiltration
	<b>CARRIER AND READILY REMOVABLE</b>	40	.Comprising seal, or element
	<b>THEREFROM</b>		cooperating therewith, movable
17	.And means for introducing either		axially for controlling outlet
	material or auxiliary fluid		on periphery of bowl
	into bowls	41	.For sealing between stationary
18	..Including conduit of flexible		and moving elements
	umbilical cable type	42	<b>INCLUDING DRIVEN MEANS AT LEAST</b>
19	.And means for rotating each bowl		<b>PARTIALLY EXTERNAL OF BOWL FOR</b>
	about own axis		<b>MOVING MATERIAL THERETO OR</b>
20	.Having bowls, or holders		<b>THEREFROM</b>
	therefor, pivotably attached to	43	<b>ROTATABLE BOWL</b>
	carrier for tilting during	44	.Comprising plurality of bowls
	rotation of carrier		partly or wholly within one
21	.Comprising flexible bowls		another
	embraced by pockets provided	45	.Including flexible, removable
	therefor in carrier		lining therein
22	<b>INCLUDING INTRODUCTION OF</b>	46	.Including bearing means adapted
	<b>DIFFERING-WEIGHT FLUIDS (E.G.,</b>		to enable bowl to establish
	<b>LIQUIDS) FOR COUNTERCURRENT</b>		dynamic axis of rotation
	<b>FLOW</b>		

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|----|--|----|---|
| 47 | .Including means for imparting other movement to bowl in whole or in part before, during or after its axial rotation   | 64 | .Having structural provision for facilitating cleaning (e.g., quick take apart)   |
| 48 | ..Axial movement of one portion of bowl wall relative to another (e.g., for discharging)   | 65 | .Vertically-oriented, and including structural provision for bottom entry of material   |
| 49 | .Driven by energy of material supplied   | 66 | .Including structure located within bowl and defining axially-extending, helical flow path                                    |
| 50 | .Including driven material-moving means therein  | 67 | .Including structure located within vertically-oriented bowl and extending outwardly from central region (e.g., axis) thereof |
| 51 | ..Plural driven means  | 68 | ..Comprising plurality of elements, each concentrically encircling axis of bowl and spaced therealong                         |
| 52 | ..Rotatably driven coaxially with bowl, but differing as to direction or speed   | 69 | ...Each extending generally normally to region, and having surface displaying three-dimensional configuration                 |
| 53 | ...Including element having helical blade  | 70 | ...Each extending away from region with significant downward, as well as significant outward, component (e.g., nested cones)  |
| 54 | ....Modified blade   | 71 | ....And the plurality divided vertically into two or more, physically separate or functionally distinct groups                |
| 55 | ...Including plurality of discrete pushing or scraping elements moving proximate to material collecting surface of bowl  | 72 | ....And extending therebeyond generally downwardly  |
| 56 | .Including discharge-related structure in nature of (a) outlet having device for controlling quantity of flow, (b) element associated with pickup of material and adjustable for varying quality of flow, or (c) static scraper or the like for engaging material in moving bowl | 73 | ....And one or more elements having surface displaying three-dimensional configuration  |
| 57 | ..Element associated with pickup of material and adjustable for varying quality of flow  | 74 | ..Comprising plurality of axially-extending, plate-like elements, each having its inner edge lying along central region       |
| 58 | ..Static scraper or the like for engaging material in moving bowl  | 75 | ...And each extending outwardly in curve of changing or constant radius   |
| 59 | ...And structure to receive or guide material loosened   | 76 | .Including plurality of axially-extending, tubular elements located within vertically-oriented bowl                           |
| 60 | .Including housing for bowl  | 77 | ..Each element concentric with axis of bowl   |
| 61 | .And means for reducing, and maintaining, pressure in housing below that of environment  | 78 | ...And at least one element having other-than-circular periphery  |
| 62 | ..Serving to support bowl from above   |    |   |
| 63 | ..For vertically-oriented bowl, and having plural receivers at top for separated components  |    |   |

- 79 .Including plurality of axially-  
extending, plate-like elements  
located within vertically-  
oriented bowl
- 80 .Including plurality of shelf-  
like elements located within  
vertically oriented bowl and  
extending generally  
horizontally inwardly from  
wall thereof
- 81 .Material of bowl wall
- 82 INCLUDING VIBRATION DAMPING MEANS
- 83 INCLUDING BEARING STRUCTURE
- 84 INCLUDING SPECIFIC DEVICE OR  
STRUCTURE FOR DRIVING OR  
CONTROLLING BOWL
- 85 MISCELLANEOUS

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